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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,150	07/16/2003	Matthew Louis Courcy	NSC-P05579	1923

7590 04/13/2005

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EXAMINER	
WILLIAMS, HOWARD L	

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/622,150	COURCY, MATTHEW LOUIS	
	Examiner	Art Unit	
	Howard L. Williams	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-9,11-15 and 17-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-9,11-15 and 17-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

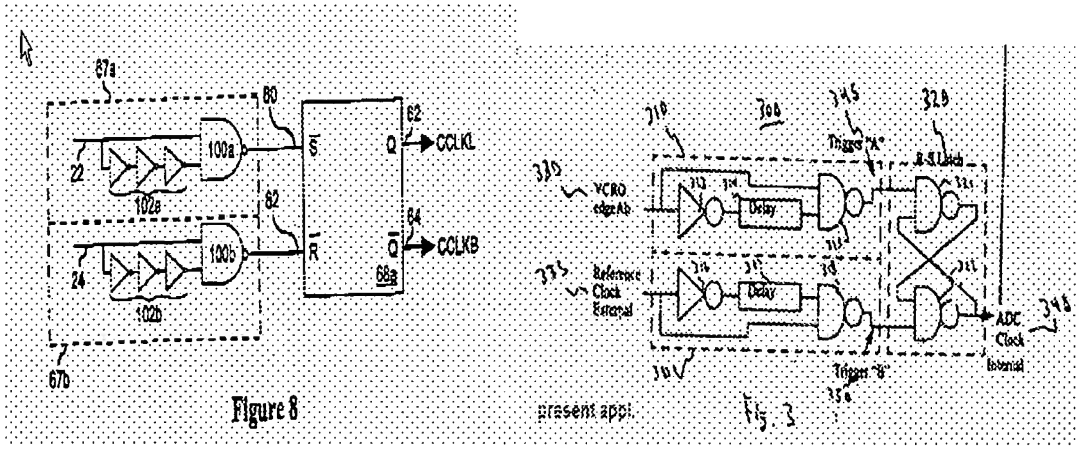
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by Ma (US 6320437). The "clock pulse generator" (30; fig. 2) provides edge detection that receives an external clock signal at input 33 and provides an output to latch (10;fig. 2), which is an S-R flip-flop. The clock pulse generator includes a NAND gate (N1) and delay elements to supply the second NAND gate input.

Claims 1-3, 5, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by U.S. P.A.P. 20020017936 A1 to Stark et al. Stark in figure 8 discloses: edge detectors (67a & 67b) and latch/S-R flip flop (66a).



Stark's figure 8 (on the left above) has the same configuration as figure 3 of the present application since the inverters 102a and 102b provide delay circuits. The inputs (22, 24) to the Stark edge detectors are complementary clock signals and 180 degrees out of phase. In the terms of signal period and duty cycle would be one-half clock period delayed phase.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-9, 11, 12, 18-21, and 23 are rejected under 35 U.S.C. 103(a) as unpatentable over Ma (US 6320437) in view of Huynh (US 20030107432 A1) or U.S. P.A.P. 20020017936 A1 to Stark et al. in view of Huynh (US 20030107432 A1). Ma discloses the clock duty cycle regulator and mentions myriad uses for the improved clock signal but does not explicitly mention an analog-to-digital converter. Huynh discloses a switched capacitor circuit that is used in an analog-to-digital converter and desires to provide an output each clock cycle and recognizes the need for a 50% duty cycle clock (¶ 0030). The clock duty cycle regulator of Ma would have been an obvious choice to provide a 50% duty cycle clock signal because use of the a cleanly squared clock signal would provide a suitable clock to enable Huynh to achieve the output once each cycle thus increasing the circuit through-put.

Stark et al., like Ma, does not mention ADC systems in particular but discloses two edge detectors side by side to the S input and R input, respectively, of an S-R flip-flop or latch, similar to applicants' embodiment. The clock duty cycle regulator of Stark et al. would have been an obvious choice to provide a 50% duty cycle clock signal because use of the a cleanly squared clock signal would provide a suitable clock to enable Huynh to achieve the output once each cycle thus increasing the circuit through-put

The remarks filed 01 March 2005 have been fully considered but are not found persuasive.

The remarks urge that Ma is not suitable to support the rejection of the claims because the delay unit (20; fig. 1 & 2) receives a feedback signal from the output of the

latch circuit. While the feedback is the only illustrated signal in figure 1 supplied to the delay unit such is not the case with figure 2 (inserted below)

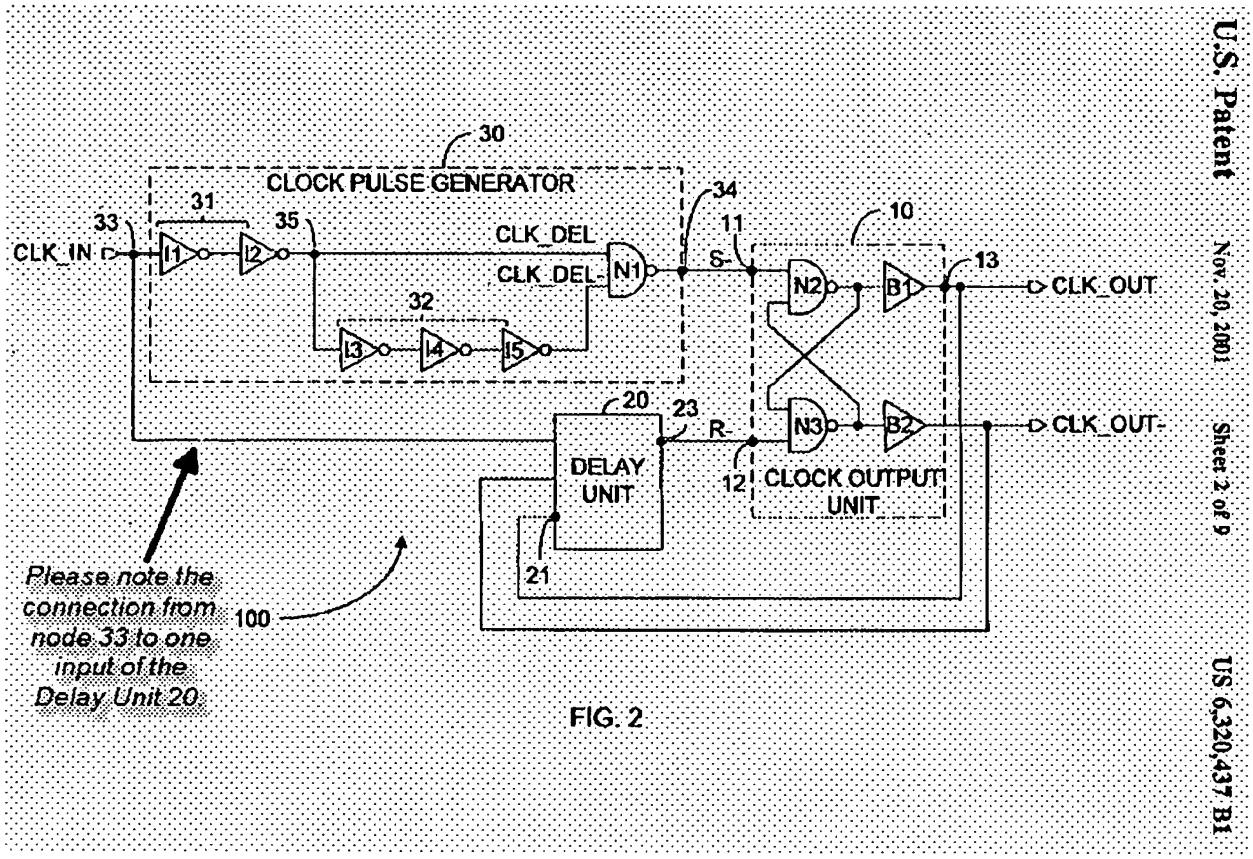


FIG. 2

Any inquiry concerning this communication should be directed to Howard L. Williams at telephone number 571.272.1815. The Patent and Trademark Office has a new central facsimile number for application specific correspondence intended for entry, it is 703-872-9306.

4/3/05
Voice 571.272.1815

Howard L. Williams
Primary Examiner
Art Unit 2819